The usefulness of journals as a source of qualitative data in educational research was studied through journals kept by preservice teachers in an adolescent development course with a practicum component. Four journals were analyzed, two from preservice teachers assigned to project-centered classrooms and two from preservice teachers assigned to traditional classrooms. The journals of these practicum students show that these preservice teachers benefited from classroom experience and that the journals appeared to help them think about teaching, classroom activities, and teacher-student interactions. Practicum students assigned to project-centered classrooms described more intimate, and, it is argued, more meaningful interactions with students than those assigned to the traditional classrooms. No complicated coding strategy was needed to discern the difference between the two practicum experiences. The journals appeared to be an efficient and potentially rich source of data for research and evaluation questions. (SLD)
Participant journals as data source: An unbiased method for eliciting and comparing participant experience

by

Gerald Giraud, Ph. D.

Paper presented at AERA Annual Conference, April, 1999, Montreal, Quebec
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Inquiry into the differential effects of various programs, instructional methods, or learning environments often takes the form of comparisons of enumerated outcome measures. As Merton et al (1990) point out, such result comparisons can be inadequate for the purpose of explaining how a program or method achieved its effect. When HOW a method worked is not explored through the lens of participant perception, questions about how participants' individual attributes, attitudes, and psychological processes interacted with the treatment applied remain unanswered. This can result in inefficient or inappropriate future applications. The purpose of this paper is to describe an efficient and effective method for collecting and analyzing qualitative data in experimental and quasi-experimental research situations for the purpose of understanding how, as well as if, treatment was effective.

Qualitative data is often collected through interviews. In situations where treatments are of short duration, participants can be easily interviewed after treatment to ascertain how they experienced the treatment. Or, when treatments are of longer duration, such as over the course of the semester, participants can be interviewed at intervals. In experimental situations, when two or more treatment conditions are being compared, interviews of participants in the several conditions can be compared for differences. There are some serious disadvantages to the interview method, however: Interviews are time consuming for researcher and subject; subject response can be influenced by the nature and content of pre selected interview questions; subject response can be influenced by the interviewer's response to the subject; interview transcripts (especially from open ended interviews) are often voluminous and difficult to analyze (See Merton et al for a thorough discussion of interview problems).

A desirable method for gathering qualitative data would have several characteristics. Such a method would 1) be efficient in terms of time (both in gathering and analyzing the data), 2) allow the participant to define aspects of the treatment the participant viewed as salient, 3) allow the participant to describe how he/she experienced the treatment without the influence of interviewer or interview questions.

One method that fulfills these requirements to some extent involves the use of participant journals. A journal is a written record, created by the participant, of the participant's observations of a given situation over time and also how the participant experienced the situation in question. Journals, as records of participant experience, can be compared advantageously to interviews as sources of evaluative data. First, journals allow participants to reflect on their experience without the influence of interviewer or interview questions. Second, journals can be solicited from all participants with a minimum of researcher time and participant inconvenience; interviews require
scheduled appointments, and often are impossible to impose on all participants due to time and resource constraints. Third, journal entries can be collected on a regular schedule, and therefore can be expected to be contemporaneous accounts of participants experience; interview data is generally retrospective and thus limited by recall interference. Finally, journal entries can be solicited as typed manuscripts or on computer disks, allowing the researcher to easily manipulate the data with software designed for qualitative data analysis; interview data is generally recorded and must be transcribed. To demonstrate the utility and effectiveness of journals as a source for qualitative data intended to be a basis for comparison, I next describe an evaluation situation in which the journals of pre-service teachers enrolled in a practicum are used to compare practicum assignments in terms of how pre-service teachers experienced interactions with middle school students.

The educational method evaluated in this demonstration involved the reliance on projects as the basis for classroom instruction. As constructed at the demonstration sight, the projects were intended to result in significant relationships between students and adults, relationships based on shared emotional and cognitive understanding as well as shared value structures. These shared understandings and values were seen as arising from the cooperation of students, teachers, and other adults in selecting, planning and carrying out classroom learning projects. The organizers of the project-based instruction believed that such cooperation would build structures for positive ongoing interaction, and that such interaction would likely result, through a feeling of connectedness and commitment, to better performance in school, in terms of behavior and academic achievement.

Organizers were also interested in how pre-service teachers involved in an educational psychology practicum experienced the project-centered classrooms. Of particular interest in this regard were the opportunities practicum students had to interact with and learn about middle school students.

The project pedagogy was evaluated in terms of academic achievement by comparing standardized test scores of middle school students who participated in project classrooms and those who did not (the project students out performed the non-project students). The comparison of practicum student journals reported here helped organizers to evaluate whether the hoped-for cooperation and interaction between middle school students and adults was facilitated by the project-centered method, and also was the primary basis for judging whether the project based classrooms resulted in a different kind of practicum experience than traditional classrooms.

Method

Pre-service teachers enrolled in an adolescent development course with a practicum component. Participants were assigned to either a traditional classroom or a project-based classroom, and were asked to keep daily journals about their practicum experience.

Students were asked to write about what they observed and did, and also to report their subjective reactions to what they saw and did. The journals were reviewed weekly by the course
instructors, as a way of assuring that the journals were contemporaneous reflections of the participant's experiences. The course instructors read and returned the journals to students. The instructors made comments on the what the students had written, such as 'this is interesting' and 'good observations', to let the students know that the journals had been read. Evaluative comments about the students' experiences were avoided.

NOTE: All place names and personal names are pseudonyms.

A purposive sample of student journals was selected. This sample was intended to represent practicum students who were in several situations: project centered classrooms at Goodland Middle School (GMS), non-project classrooms at GoodLand, and classrooms at other middle school. The four journals selected for analysis were written by Becky and Michelle, who were assigned to project-centered classrooms, and Karmen and Julie, who were assigned to traditional classrooms. Karmen was assigned to a traditional classroom at GoodLand school; Julie was assigned to Park school. The journals began in late September, and ended in December of the same semester.

The journals were analyzed by 1) an initial reading to gain a sense of the content, 2) a closer reading to identify themes in the journals, and 3) a close examination to pick out salient passages that typified the themes. We were looking for indications that practicum students assigned to project classrooms had a different experience than students assigned to traditional classrooms. The journals were read by two reviewers, who independently identified themes. The independently identified themes were then compared for congruence. Journals of students assigned to service learning classrooms were compared to those of students not in service learning classrooms, both at Goodland and elsewhere, with particular attention given to comparisons at time points during the semester.

The comparison of journal entries by date was accomadated by the fact that almost all journal entries were less than a hand written page in length. Thus, journal entries could be 'laid out' side by side according to the date of entry, and compared in a strait forward manner. (See Table 1.)

Description

On the first day of her practicum, Becky was assigned to the shop class at GMS. She was surprised by how receptive the middle school students were to the practicum students. In her entry for the first day, she wrote: "What I expected was for the kids to act as though they were better than us. Not show us any authority type of respect. It was totally opposite. They just came up to us and started asking questions and wanting help. I think that really helped me adjust quickly and realize that I could joke around w/them too." Michelle, like Becky, was assigned to the project team. Her journal describes involvement with students on the first day:

I helped one boy carve his name (in shop class) because he had missed the day before and was behind everyone else. He was very quiet but I kept talking to him. . . I went
over and talked to a girl who was already done. As I walked over to her, I saw she was putting on lipstick and powdering her face.

Michelle, as Becky had done, was encountering students in social and interpersonal ways. I contrast Becky's and Michelle's first day entries with that of Julie, a student assigned to a non-project classroom in Park Middle School. Julie wrote of her first day: "Because it was the first day, I didn't do much. I was a little disappointed because I thought I would get a chance to meet the students or be introduced to them. I was not. So the first day I just observed the students doing example problems on the board."

Becky eventually became involved in the quilting project. This project involved sewing a quilt which would be raffled to provide money for the local homeless shelter. Students cut out fabric squares, arranged them, and sewed them together, with the help of teachers, to form the quilt. In this project Becky met Joe. She describes their meeting:

There was one boy- named Joe- who I told to cut out a pattern on the black line. He look[ed] at me with this very worried face and said 'I can't do that'. . . I figured out he was SPED [special education] kid. . . I told him that he could cut close to [the line] and I would trim the edges for him. He was so relieved. So when I was trimming he had got a couple of lines cut on the black and I told him he did great. He just gave me a look like 'thanks'. It was really sweet.

As the semester progressed, Becky had opportunities to get to know Joe as they worked on the quilt. In her entry for October 11 she describes working with Joe on the quilt: "It was very interesting to talk to him one on one. He did all the sewing great and he told me all about how he helps with the sewing that his grandma does and how he has make a pillow case."

Julie’s entry describing her experience in a traditional classroom on October 10th reads: "The students weren’t so wound up today except for one student. He is a good student, he just needs a lot of attention. I think Mrs. Jensen does a good job with handling him. He even came over to my desk and tried to chat with me for awhile. He, of course, was asked to sit down. He must be neglected. "(Here Julie drew a smiley face.)

As Becky was working closely with Joe on making a quilt and learning about his family, Julie was observing the class, and when a student tried to talk with her, he was asked to sit down in his seat.

As a result of her interaction with Joe, Becky made positive judgments about Joe. She wrote: "He is a very intelligent boy." Becky recognized that Joe needs help, however. The entry continues, "He just needs someone to be a backbone--he has too many responsibilities for a 7th grade boy." Becky is referring to the information she has learned about Joe from teachers, that he must care for his brothers and sisters and do the housework.

Getting to know a student through working on the quilt with him is an important part of Becky’s practicum. Her observations of Joe are noted throughout her journal. Becky concludes
her entry for the day she learned about Joe helping his grandma by writing: "I left that school today with so many things running through my mind. It was an interesting and very much of a learning experience."

On October 18 she wrote: "I worked with Joe again today, since we had to have a partner help with tracing. He asked me if I would be partners with him. It really made me feel good."

Karmen was assigned to a particular student for her practicum at Goodland. She worked with Aaron in a traditional social studies classroom. On October 16, Karmen wrote "When I came into class and sat down next to [Aaron] he told me what he had done the weekend before, I feel like I am making progress. Today the students took notes all period, so I just helped Aaron get everything down correctly."

On the following days, Karmen describes her interaction with Aaron:

October 18: I had to help Aaron [with a quiz], I took him into the library and had to read him the quiz and explain to him what some the words meant. I could tell . . . there was no way that he had studied the night before at all."

October 23: I helped Aaron with the work sheet. He seems to have a very short attention span. Every two to three minutes I had to remind him to say focused and keep working on the assignment.

Julie was a practicum assigned to a traditional classroom at Park Middle School. On October 31, she wrote “This is my tenth time at Park Middle School. I’ve finally gotten settled in and feel comfortable in the classroom, although I am still observing.” Julie was in the classroom, but only as an observer. She reflected on her future as a teacher:

Sometimes I wonder if I should be a teacher. I love these students, but I don’t know if I have the patience to deal with certain students. It worries me because I always wanted to be a teacher and right now I’m just not sure. These are good kids, but their age maybe is what has turned me off.

The opportunity to interact with students in social and emotional ways was a theme in the journals of practicum students assigned to the Goodland projects. Michelle wrote on October 1:

I then saw another girl who looked like she was almost in tears. I sat beside her and asked her if she needed any help but she just didn’t feel like doing anything. She then told me it had to do with her grandma. I didn’t [know] what I was going to say but I tried to soothe her.

Recall that when a student tried to talk with Julie in a traditional classroom, he was told to sit down in his assigned seat.

Besides the opportunity to develop relationships with individual students, the projects gave Becky a chance to observe student interaction in general and to find out about middle school
students. Near the end of the semester, she wrote, "I was interested to see the different ways that the kids went about to complete the designs [referring to the quilt designs]. You could tell which kids were more of individuals by the way they wanted to stick with their own ideas and not others." Becky also saw how students could generate ideas for projects. She describes a session where students shared ideas for new projects:

After the kids wrote down ideas for the new projects, the discussed them out loud. Which I thought was a great idea because after some things were mentioned, many more sparked from some mentioned. Some of the ideas were a dance class, making a video about all the different cultures in the school, having a culture day and presentation, making clothes and toys for the homeless shelter. I thought they did a great job on thinking up ideas.

Julie (assigned to a traditional classroom in another middle school) also noted the value of projects in the more tradition setting. She describes a class assignment in which students work project-like problems:

Everyone is getting the correct answers. I'm telling you that when students do 'hands-on' math, they are more accurate and enjoy it much, much more. They are using objects to measure things--they are seeing relevance.

When Julie is given the opportunity to interact with students, she does make observations based on social interaction. However, her practicum in a teacher centered, rather than project centered, classroom was structured such that she was an observer, rather than a participant in the school lives of students.

On the final day of practicum Karmen, a student assigned to a non project classroom at Goodland, wrote:

Well, it is my last day of practicum, and what a way to leave: give the kids a test. They weren't too happy. I read Aaron his test; he seemed to do pretty well. I told him how glad I was to work with him this semester. I was kind of sad when I left the school today. I really loved working with Aaron. I realized this semester that I am definitely in the correct area of study. I love to teach.

Julie, the practicum student assigned to a traditional math classroom at Park School, wrote on the last day:

I cannot believe how fast the semester has gone by. This is already my last day of the practicum. The class seems to be pretty quiet and content today. Maybe they are just scared . . . They have a quiz today. Overall this practicum has taught me many things . . . I have gained a lot of knowledge about racial groups in this classroom.

Becky's final entry was:
Today was my last day for the semester. In the project area, the kids work on their strip pillows, and I cut out templates w/Quang for the upcoming crib quilt. Right before class started one girl who is very short and a little pudgy (not much at all) walked into class and she was dressed up today. When she came into class she was looking down and upset and she asked one girl if she looked short and fat. The girl said that she looked short, but not fat. Then this girl just sat down and kept mumbling to herself about being short, fat, hating school.... I somewhat think that she was doing it for the attention and for people to notice new outfit. As soon as she stopped getting attention, she stopped acting like that, but she still had this sad face on. I wonder if someone had been making fun of her. Kids can be cruel sometimes.

Michelle, assigned to the project rooms, wrote of her last day:

I worked in the projects today. The students are still working with the elderly people by visiting with them and making different projects for them. The students have been working hard on the projects. They seem to really enjoy doing it. Before we went to the nursing home the last time, the teachers handed out the different craft items to the students. They were going to pass these out to the people at the nursing home. Most of the students forgot to write their names on the items so they didn't get the ones they each actually made. I was surprised to see how upset this made them all. They kept wanting a reason as to why they didn't get their own. By their reaction, I could tell how much they wanted to give the ones they made to the people.

Anyway, they're going to the nursing home again and I think that since they know what to expect, they'll be more relaxed and more willing to, communicate with the people. They've even thought up questions to write and ask so they have something to talk about. I think this is a great experience for them and they're doing something good for someone else.

Analysis

All of the student journals suggested that the students benefited from practicum experiences. Students who served their practicum in traditional classrooms reported learning about students and how they are in teacher-centered classrooms. They spent much of their time observing, and their engagement with students was delayed. When they did interact with students, it was around academic work: reading tests to students, as Karmen did, or helping to teach lessons, as Julie did. These students wrote that the experience gave them insight into what it might be like to be a teacher, and into the situations and issues they would face in the classroom. Students assigned to the project centered classrooms for their practicum described almost immediate personal interaction with students. They more often described how students interacted with each other and reported the interactions in greater detail than did students in the traditional classrooms. These students wrote less about the teachers in the classrooms, and more about the students and their interaction with them.

The observations that students in the two practicum conditions made in their journals, when compared by entries on dates several weeks into the practicum semester, reveal that
practicum students assigned to projects were observing and thinking about the interactions, behaviors and concerns of individual middle school students. Julie, assigned to a traditional math class, was still a passive observer. Karmen, assigned to work with a particular student in a traditional social studies class, was focusing on getting the student to do homework and complete work sheets.

Recall the entries for October for Julie, Becky, Karmen and Michelle. Julie, assigned to a traditional classroom, wrote “I’m feeling more settled in, but I am still observing,” while Becky wrote of asking Joe if she could be his partner in tracing patterns for sewing. On October 1, Michelle talked with a girl ‘almost in tears’, while on October 18 Karmen was trying to get Aaron to pay attention to a social studies work sheet. Julie was still a passive observer, Karmen was trying to get Aaron to something he was not interested in, Michelle was interacting emotionally with a student and Becky was being Joe’s partner.

The relationship that Becky developed with Joe benefited both Joe and Becky. Joe gained by getting support in the classroom, and by having someone to talk with about his life outside of school. Becky learned from Joe what a teacher can mean to a student, and also gained personal good feelings a Joe accepted her. Karmen, assigned to a traditional classroom, got to know a student, but the interaction between them was around doing home work and worksheets, and less often involved emotional or social communication.

The journal entries for the last day of the practicum also reveal differences in the experiences of the practicum students. Karmen and Julie described the students taking a test and a quiz. They wrote that they enjoyed the experience, and learned something about what it would be like to teach. Michelle and Becky wrote about students looking forward to completing projects: going to the nursing home to give gifts and talk with residents, cutting templates for a crib quilt. On the last day, they were observing student behavior and interaction around projects and social and emotional issues.

Conclusion

The journals of practicum student revealed that teachers-to-be benefit from classroom experience. It appears to help them think about teaching, classroom activities, and teacher-student interactions. The practicum students assigned to project classrooms described more intimate and, we argue, meaningful interactions with students, while the experiences of students assigned to more traditional classrooms were more restricted to traditional teacher centered observations.

Our reading of the journals suggests that teachers-to-be can be introduced to classroom practice that moves away from a teacher-centered practice to an interactive pedagogy that allows teachers and students to interact in meaningful encounters, and that they will benefit by learning about the social and emotional interaction of students.

At the end of the semester in which the practicum occurred, a sample of participant journals was selected from both practicum situations. Journal entries were tabled by date, and the experiences of participants were compared across dates.
Commentary on the method

Journal entries across the semester reflected a qualitatively different experience for participants, depending on which practicum situation they were assigned. A straightforward reading of the tabled journal entries revealed easily discernible differences in the participant’s practicum experience. Participants enrolled in the project-based classroom experienced more interaction with students and participated in classroom activities than did participants assigned to the traditional classroom setting (see Table 1 for example of data structure).

Journals were a convenient and effective method for discerning the difference between the two practicum experiences. No complicated coding strategy was required to reveal the differences between the two treatment conditions. When tabled or ‘laid out’ by date, journal entries showed not only the different kinds of experiences resulting from the practicums, but also how these experiences changed (or did not change) over time. No time consuming schedule of interviews was necessary, and the journals captured the reflections of all students in the practicum, not just a few selected for interview. This allowed for a selection of journals not based on convenience or compliance.

In terms of analysis, this demonstration utilized a straightforward, apodictic examination of the data produced by the journals. More complicated data analysis would also be possible, such as adjective counting (focusing on negative/positive adjectives), keyword counting (e.g. names of students) or other more molecular data examination techniques. The molar devices applied here were sufficient for the purpose of the study.

Another important aspect of the journals as sources of qualitative data was that the a priori expectations of the researcher were not imposed on the participants through interview questions and the reaction of the researcher to the participant. Participants were free to attend to any aspect of the experience they deemed important, and to report it in a way that they felt was most appropriate. Thus, the practicum conditions could be compared in terms of how the participants experienced them, without constraints on the data imposed by the researcher. It is important to note that the participants in general confined the content of their journal entries to the situation of interest: the practicum experience and how they reacted to it and understood it to be important to them.

In this example of using participant journals as a source of qualitative data for use in comparing treatment conditions, participants were not required to type entries or to put entries onto computer discs. Instead, participants were free to construct their entries as they desired. Because these participants were college students, it would probably have been appropriate to require the journals to be typed, or placed on computer disks. Such a requirement would have facilitated the analysis of the data gathered in the journals.

Conclusions about the method

Participant journals are an efficient and potentially rich source of data for research and evaluation questions. Journals allow participants to record their experiences and reactions without
the immediate influence of the researcher, potentially resulting in data that is less biased by researcher expectations. Further, independent journaling allows participants to decide what is important in their experience, as opposed to interviews, which are likely to be guided by the researcher toward experiences of interest to the researcher. Tabling journal entries by date and treatment condition is an effective method for revealing differences between participant experiences in different treatment conditions. This method has potential for use in comparing how participants in different categories experience the same treatment condition, such as comparing males and females.

References

Table 1. Journal entries by date and writer

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<tr>
<th>Date</th>
<th>Becky (project)</th>
<th>Michelle (project)</th>
<th>Julie (traditional)</th>
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<td>First day, September</td>
<td>They just came up to us and started asking questions and wanting help. I think that really helped me adjust quickly and realize that I could joke around w/them too.</td>
<td>He [a student Michelle helped] was very quiet but I kept talking to him.</td>
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<td>(Oct. 18) I then saw another girl who looked like she was almost in tears. I sat beside her and asked her if she needed any help.</td>
<td>(Oct. 10) The students weren't so wound up today except for one student. He even came over to my desk and tried to chat with me for awhile. He, of course, was asked to sit down [in his assigned seat].</td>
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<td>(Oct. 31)</td>
<td>This is my tenth time at Park Middle School. I've finally gotten settled in and feel comfortable in the classroom, although I am still observing.</td>
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